To: Robert Law[rlaw@demaximis.com]
From: Naranjo, Eugenia
Sent: Wed 3/6/2013 12:58:59 PM
Subject: RE: FFS model remediation inputs

You're welcome. You should have also gotten the SEDFlume data. I was in data sharing mode yesterday :)

From: Robert Law [rlaw@demaximis.com]
Sent: Wednesday, March 06, 2013 7:51 AM
To: Willard Potter; Naranjo, Eugenia
Cc: Vaughn, Stephanie; Yeh, Alice; Edward' 'Garland; James Wands; 'Rooni Mathew'
Subject: Re: FFS model remediation inputs

Thanks

>>> "Naranjo, Eugenia" <Naranjo.Eugenia@epa.gov> 3/5/2013 1:22 PM >>>

Rob,

The attached file has the general road map to the sequence (Modeling Runs Progression 091112.docx). The answers to your requests are attached. Let us know if you have any questions.

- Dredging and/or capping locations in the format of model cell (I,J) and/or GIS shapefile
  - Sediment Transport
    - RM 10.9 - RM10-9_Sequencing_SedTranGrid_10042012.xlsx
    - Alternative 2 (Deep Dredging) - Alt2_Sequencing_SedTranGrid_10122012.xlsx
    - Alternative 3 (Full Capping with Dredging for Navigation) - Alt3_Sequencing_SedTranGrid_10082012.xlsx
    - Alternative 4 (Deep Dredging) - Alt4_Sequencing_SedTranGrid_10082012.xlsx
  - Carbon
    - RM 10.9 - RM10-9_Sequencing_CollapsedGrid_11142012.xlsx
    - Alternative 2 (Deep Dredging) - Alt2_Sequencing_CollapsedGrid_11142012.xlsx
    - Alternative 3 (Full Capping with Dredging for Navigation) - Alt3_Sequencing_CollapsedGrid_11212012.xlsx
    - Alternative 4 (Deep Dredging) - Alt4_Sequencing_CollapsedGrid_11142012.xlsx
  - Contaminants (RM10.9 and Alt4 no dredging below model depths, therefore we don't need concentrations below 5.5ft, use carbon file)
    - RM 10.9 - Use Carbon File
    - Alternative 2 (Deep Dredging) - Alt2_ContaminantModel_CollapsedGrid_112612.xlsx
    - Alternative 3 (Full Capping with Dredging for Navigation) - Alt3_ContaminantModel_CollapsedGrid_112612.xlsx
    - Alternative 4 (Deep Dredging) - Use Carbon File
- Sequence of dredging/capping at each location

- ○ Same files as above

- The start date of the remediation for each year
  - ○ Presently the model assumes start date of March 1, 2018 and continuous production at an annual rate. The annual rate is calculated assuming 2 dredges, 2000 cy/day/dredge, 6 days a week, 40 weeks per year (960,000 cy/year). For the model the annual rate was distributed to 365 days, so the model assumes continuous production.
  - ○ See Dredge_Calendar.xlsb for overall schedule
- Depth of dredging for each location
  - ○ Included in the files above
- Thickness of capping for each location
  - ○ Included in the files above
- Type of cap used at each location
  - ○ For the purposes of the model, upland borrow sand with the composition:

Passing Sieve Size	*Um*	*%Passing*
¼	6300	100
# 4	4750	98.8
# 8	2360	33.2
# 16	1180	9.7
# 30	600	3.4
# 50	300	1.9
# 100	150	1.4
# 200	75	1
EPA model	*Um*	*%*
	34	1.0
	250	2.0
	1000	25.0
	4100	72.0

- Length of dredging/capping in days for each cell
  - ○ Included in the files above
- Average concentration for all chemicals below the dredge prism for each cell
  - ○ For dredging greater than 5.5 ft see contaminant sequence files
  - ○ Will need to compile from run outputs for dredging less than 5.5 ft, or assume little change in bathy and use IC concentrations from appropriate layer.
- % mass of solid and chemical release due to dredging/resuspension
  - ○ 3% (1.5% in the surface and 1.5% in the bottom layer)
- Post-dredging/capping concentrations for all chemicals in each cell
  - ○ Solids per the table above
  - ○ Carbon = 0.1%
  - ○ Contaminants = 0